

A Desktop Support for LCD

Field of the Invention

The invention is related to a desktop LCD support. Especially, it is a simple support frame with adjustable angle of elevation.

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Background of the Invention

For the current desktop LCD support, as in Figure 1, it is composed of a connector 2' attached to LCD back and a base 3' on desk. At the connection of the connector 2' and the base 3', there is a connecting axle 21' and a pivot module 4' for connection, positioning and angle adjustment. The pivot module 10 4' consists of two metal washers 41' with a rubber gasket 42' in between and an elastic gasket 43' with a nut 44' to lock at both ends of the connecting axle 21'. Such pivot module 4' not only has many components, inconvenient for assembly, but also the shortcoming that after a long term of use for holding and positioning the pivot module 4' will lose its angle adjustment function due to 15 swinging and rotation. Its applicability is not practically satisfactory.

Summary of the Invention

The invention aimed at the practical need by LCD user to improve the traditional shortcoming. A desktop LCD support has been developed to meet industrial demand.

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The main objective for the invention is to provide a desktop LCD support, which uses a simple frame module with easy assembly characteristics. The simple fixture module and simple inclined frame provide angle adjustment and firm positioning. Such a support with a frame and angle adjustment in an integrated structure can facilitate assembly, reduce manufacturing cost and increase product competitiveness.

Brief Description of the Drawings :

Figure 1 is the illustration for the components of traditional desktop LCD support.

10 Figure 2 is the illustration for the components of the desktop LCD support in the present invention.

Figure 3 is the illustration for using thin computer as support base in the present invention.

15 Figure 4 is the illustration for using molded plate as support base in the present invention.

Figure 5 is the illustration for an example for the desktop LCD support assembled in the present invention.

Figure 6 is the illustration for an example for the desktop LCD support adjusted for inclined angle in the present invention.

20 Detailed Description of the Invention

Please refer to Figure 2 and Figure 3. The desktop LCD support mainly comprises a fixture module 2 and an inclined support module 3. The fixture

module 2 consists of two axles 21 directly attached to LCD 1 back and two sleeves 22 on a base 4. The sleeve 22 has a curved opening on its top for the two axles 21 to match and rotate. At bottom, there is a 90-degree wedge 222. The inclined support module 3 consists of a rotary frame 31 on bottom back of the LCD 1 and an adjustable fixture 32 at the bottom of the base 4. The adjustable fixture 32 has a plural number of curved opening 321 on one side at equal distance in the longitudinal direction for the frame 31 to position.

Thus, in a practical example, the two sleeves 22 on top of the base 4 have the same distance and match with the two axles 21. The adjustable fixture 32 is at the bottom of the base 4 for the frame 31 to match against. This base 4 can be a common thin computer (refer to Figure 3) or an integrated molded plate (refer to Figure 4). In this way, the two axles 21 of the fixture module 2 on the back of LCD 1 match the sleeve 22 on top of the base 4 (as in Figure 5). The LCD uses its own weight to rotate against one side of the base 1 and stands up vertically (refer to Figure 3).

Further, at the two axles 21 on the LCD 1 back, there is a cavity that has an edge to match the rotation path in a curved surface 5 for the wedge 222. So when the LCD 1 leans against one side of the base 1, the curved surface 5 contacts against the wedge 222 at the bottom of the sleeve 22. This allows LCD 1 to stand up firmly (refer to Figure 3). Thus, the two axles 21 of the fixture module 2 on the LCD 1 back do not take off and fit into the curved opening 321 on top of the sleeve 22. As a result, the LCD 1 can maintain its stability on the support.

Please refer to Figure 6 for the angle adjustment for the LCD 1 in the present invention. The frame 31 fits into the curved opening 321 on top of the adjustable fixture 32 to achieve angle adjustment for LCD 1. The weight of LCD 1 makes itself lean against the base 4 in a steady state. It also uses the
5 axle 21, the frame 31 and the adjustable fixture 32 to form a triangle frame. It also uses the curved surface 5 on LCD 1 back and the wedge 222 at the bottom of the sleeve 22 for blocking. After angle adjustment, the LCD 1 can stand up steadily and firmly. The inclined angle for LCD 1 can be adjusted by the number of curved opening 321 at equal distance on top of the adjustable fixture
10 32 and the shift of the frame 31.

From the above, the invention provides a desktop LCD support, which uses a simple fixture module to achieve simple assembly and disassembly and a simple inclined frame. Thus, it not only provides angle adjustment function and
15 a secure positioning function. Compared with the traditional desktop LCD support, it has support frame and angle adjustment function with simple structure. The entire structure is simple, so it facilitates assembly with great reduction in manufacturing cost and increase in competitiveness.